

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CROWN PACKAGING TECHNOLOGY, INC. and CROWN CORK & SEAL USA, INC.,	:	
	:	
	:	
Plaintiffs,	:	
	:	
v.	:	Civil Action No. 05-608-MPT
	:	
REXAM BEVERAGE CAN CO.,	:	
	:	
Defendant.	:	

MEMORANDUM ORDER

INTRODUCTION

This is a patent infringement case. On August 18, 2005 Crown Packaging Technology, Inc. and Crown Cork & Seal USA, Inc. (collectively "Crown") filed suit against Rexam Beverage Can Co. ("Rexam") and Rexam Beverage Can Americas, Inc. alleging infringement under 35 U.S.C. § 271 of Crown's U.S. Patent No. 6,848,875 ("the '875 patent").¹ On August 30, 2005, Crown filed its First Amended Complaint adding a count alleging infringement of its U.S. Patent No. 6,935,826 ("the '826 patent").² On October 18, 2005, Crown filed an Unopposed Motion for Leave to File Second Amended Complaint³ which was granted on October 20, 2005⁴ and that complaint was filed on the same date.⁵

¹ D.I. 1 (Complaint for Patent Infringement).
² D.I. 3 (First Amended Complaint for Patent Infringement).
³ D.I. 13.
⁴ D.I. 15.
⁵ D.I. 16. Rexam Beverage Can Americas, Inc. was terminated as a defendant on this same date. See D.I. 13, ¶ 4; D.I. 15. No additional patents were asserted by Crown in the Second Amended Complaint. See D.I. 16.

On November 3, 2005, Rexam filed its Answer to Second Amended Complaint for Patent Infringement and Counterclaims, denying infringement, raising certain affirmative defenses and alleging infringement of its U.S. Patent Nos. 4,774,839 (“the ‘839 patent”), 5,222,385 (“the ‘385 patent”), 5,697,242 (“the ‘242 patent”), 6,129,230 (“the ‘230 patent”), and 6,260,728 (“the ‘728 patent”).⁶ On December 23, 2005, Crown filed its answer to Rexam’s counterclaims denying infringement and raising certain affirmative defenses.⁷

On September 11, 2006, the parties consented to the jurisdiction of the United States Magistrate Judge, pursuant to 28 U.S.C. 636(c) and Federal Rule of Civil Procedure 72, to conduct all proceedings and enter the order of judgment and the case was referred to the magistrate judge the following day.⁸

Pursuant to *Markman v. Westview Instruments, Inc.*⁹ and local practice, oral argument was held on March 16, 2007, regarding the parties’ claim interpretations. The court set forth its construction memorandum of the disputed claim terms of the patents-in-suit on May 17, 2007.¹⁰

Currently before the court is Crown’s motion for summary judgment to dismiss Rexam’s counterclaims I-V based on patent invalidity/non-infringement.¹¹ Because genuine issues of material fact remain Crown’s motion for summary judgment is denied.

⁶ D.I. 17.

⁷ D.I. 37.

⁸ D.I. 111; D.I. 114.

⁹ 52 F.3d 967 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996).

¹⁰ D.I. 334.

¹¹ D.I. 193.

BACKGROUND OF THE INVENTIONS OF REXAM'S ASSERTED PATENTS

Rexam's patents-in-suit are directed at certain aspects of beverage cans and can be grouped into the following categories.

The '839 patent relates to a method of reducing the diameter of a neck, or top, portion of a can body in what is described as smooth die necking (the "necking patent"). The reduction of the diameter of the neck of the can body permits a smaller diameter can end, thereby reducing the amount of metal used in the can end. Prior die necking methods created a can with undesirable steps or ribs on the can neck. Other prior necking methods used rollers to smooth at least some of those ribs or employed a spin necking method which created a relatively smooth neck shape but, nevertheless, produced a can with scratches and ridges on the neck surface, in addition to other undesirable results. Rexam's necking patent claims a method of using dies of decreasing size which achieve a smooth profile for the neck of a beverage can without steps or ribs and without marks on the can's neck. The necking patent is the subject of Rexam's counterclaim I.¹²

The '385 and '242 patents relate to a method of reforming the bottom of a can body, or can base (the "bottom reforming patents"). The method described in these patents strengthens the can bottom, thereby reducing the thickness of the metal used for a can body, with resultant metal savings. The bottom reforming patents are the

¹² On July 24, 2007, the court granted in part and denied in part Crown's Motion for Partial Summary Judgment Dismissing Rexam's Counterclaim I and Limiting Damages on Counterclaims II-III Based on Laches and Failure to Comply with 35 U.S.C. Sec. 287(a). D.I. 197 (Crown's Motion for Partial Summary Judgment); D.I. 347 (Order). In light of the court's grant of summary judgment dismissing Rexam's Counterclaim I, Crown's motion for summary judgment regarding Rexam's '839 patent is denied as moot. Consequently, the court will not discuss the parties' arguments (briefed prior to the court's July 24, 2007 order) with regard to Rexam's counterclaim I.

subject of Rexam's counterclaims II and III.

The '230 and '728 patents are directed at particular score lines patterns near the part of the can which is opened by the consumer (the "score line patents"). These score lines are designed to prevent complete separation of the portion of the can end that is directed inside the can when the can is opened as may happen in the case of a damaged can, for instance due to being dropped. The score line patents are the subject of Rexam's counterclaims IV and V.¹³

STANDARD OF REVIEW

A grant of summary judgment pursuant to Federal Rule of Civil Procedure 56(c) is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law."¹⁴ This standard is applicable to patent cases.¹⁵ A Rule 56(c) movant bears the burden of establishing "that there is an absence of evidence to support the nonmoving party's case."¹⁶ The nonmovant must be given the benefit of all justifiable inferences and the court must resolve any disputed issue of fact in favor of the nonmovant.¹⁷

POSITIONS OF THE PARTIES

Rexam's Counterclaims II and III allege that Crown has infringed claim 17 of the

¹³ On May 23, 2007, Crown advised the court that its motion for summary judgment of non-infringement of the '230 and '728 patents is moot in light of the court's May 17, 2007 claim construction order. See D.I. 337. Consequently, Crown's motion for summary judgment with regard to Rexam's Counterclaims IV and V is denied as moot and the court will not discuss the parties' arguments (briefed prior to the court's claim construction) with regard to those counterclaims.

¹⁴ Fed. R. Civ. P. 56(c).

¹⁵ *Johnson v. IVAC Corp.*, 885 F.2d 1574, 1576-77 (Fed. Cir. 1989).

¹⁶ *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986).

¹⁷ *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 456 (1992).

'385 patent and claims 11, 12, and 17 of the '242 patent.¹⁸ Crown argues those claims are invalid under 35 U.S.C. § 102(g) because they are anticipated by a prior process practiced by Ball Corporation ("the Ball bottom reforming process") using an apparatus referred to as the "Ball bottom reforming apparatus." Crown contends that the Ball bottom reforming process was reduced to practice prior to the application date of Rexam's '385 patent, the earlier-filed of Rexam's two patents at issue here. The Ball bottom reforming process purportedly employs all of the elements of the asserted claims of Rexam's bottom reforming patents, was carried out in the United States, and was not abandoned, suppressed, or concealed and, therefore, is invalidating prior art.

Rexam maintains that the Ball bottom reforming process is not prior art under 35 U.S.C. § 102(g) because Rexam constructively reduced to practice the inventions claimed in its bottom reforming patents prior to the alleged reduction to practice of the Ball bottom reforming process. In the alternative, Rexam maintains that, even if the court disagrees with its argument as to its constructive reduction to practice, there are nevertheless questions of fact concerning the Ball bottom reforming process which preclude the grant of summary judgment. First, Rexam contends there is a question of fact concerning whether the Ball bottom reforming process is prior art based on a dispute over the reduction to practice date of that process. Second, even if the court determines that the Ball bottom reforming process is prior art, Rexam argues that Crown has failed to present clear and convincing evidence that Ball's process was not abandoned, suppressed, or concealed; or evidence that that process anticipates, on an

¹⁸ D.I. 195, Ex. 2 (Rexam's Supplemental Responses to Crown's Amended Interrogatories Nos. 7-9 at Nos. 8 and 9).

element by element basis, its asserted claims.

ANALYSIS

“A patent shall be presumed valid.”¹⁹ “To overcome this presumption of validity, the party challenging a patent must prove facts supporting invalidity by clear and convincing evidence.”²⁰

Section 102(g) of the patent statute provides that a “person is entitled to a patent unless . . . before such person’s invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it.”²¹ Therefore, the asserted claims of Rexam’s bottom reforming patents could be found to be invalid for anticipation under section 102(g)(2) if all of the elements of the claims are found in the prior invention of another, such as, the Ball bottom reforming process, that was made in the United States and that was not abandoned, suppressed, or concealed.²²

In order to anticipate, a single prior art reference must disclose each and every limitation of the claimed invention, either expressly or inherently.²³ Although anticipation is a question of fact, it may be decided on summary judgment if there is no genuine dispute of material fact on the record.²⁴ “There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill

¹⁹ 35 U.S.C. § 282.

²⁰ *Schumer v. Lab. Computer Sys., Inc.*, 305 F.3d 1304, 1315 (Fed. Cir. 2002).

²¹ 35 U.S.C. § 102(g)(2).

²² See *Apotex USS, Inc. v. Merck & Co., Inc.*, 254 F.3d 1031, 1035 (Fed. Cir. 2001) (Section “102(g) may be asserted as a basis for invalidating a patent in defense to an infringement suit.”).

²³ *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1327 (Fed. Cir. 2001).

²⁴ *Id.* at 1327-28.

in the field of the invention.”²⁵

· Anticipation may be established if a missing claim element, while not explicitly present in the reference, is necessarily inherent in the reference.²⁶ “If the prior art necessarily functions in accordance with, or includes, the claimed functions, then it anticipates.”²⁷ In such cases, however, the evidence must make it clear that the “missing descriptive matter is necessarily present” in the asserted anticipatory reference.²⁸ A finding of anticipation will invalidate the patent.²⁹

Crown contends that the Ball bottom reforming process was conceived at least by October 12, 1990 and reduced to practice no later than February 1991 when Ball purportedly was successful in reforming the bottoms of cans on the Ball bottom reforming apparatus.³⁰ Crown avers that Ball’s process discloses each of the elements of Rexam’s asserted bottom reforming patent claims. Crown argues that the Ball bottom reforming process is prior art because Rexam did not constructively reduce to practice the subject matter of the asserted bottom reforming patent claims until July 24, 1991, the filing date of the ‘385 patent.

Although Rexam disputes the date of reduction to practice of the Ball bottom reforming process,³¹ it argues that, even if that date is correct, the Ball process is not prior art because the subject matter of the asserted ‘385 and ‘242 patent claim were

²⁵ *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991).

²⁶ *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999).

²⁷ *Id.*

²⁸ *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991).

²⁹ *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 147 F.3d 1374, 1378 (Fed. Cir. 1998).

³⁰ D.I. 194 at 8.

³¹ Rexam does not dispute the date of conception of the Ball bottom reforming process. See D.I. 271 at 5 (“Rexam agrees that the testimony of the representatives from Ball indicates a conception date of October 12, 1990, and that the lab notebooks of the named inventors corroborate that conception date.”).

constructively reduced to practice prior to the Ball's process. On January 26, 1990, a Patent Cooperation Treaty ("PCT") application was filed ("the 1990 PCT application")³² from which the '385 and '242 patents claim priority.³³ Rexam argues that application provides sufficient support for its asserted claims and, because that application pre-dates Ball's purported reduction to practice date, Ball's process is not prior art.

The court must determine whether the Ball bottom reforming process is prior art to Rexam's bottom reforming patents. In making that determination, the court must first consider whether the 1990 PCT application provides sufficient disclosure to support the asserted claims of the '385 and '242 patents. If the court determines that application provides sufficient support, the Ball bottom reforming process is not prior art and, therefore, can not be an invalidating anticipatory reference. If the court concludes Rexam's patents are not entitled to that earlier date, it must then determine whether the Ball process was reduced to practice prior to the filing of the '385 patent and, if so, whether Crown has presented clear and convincing evidence that Rexam's patents are anticipated.

"An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States . . . shall have the same effect, as to such invention, as though filed on the date of the prior application"³⁴

³² D.I. 272 at A88-A148 (1990 PCT Application, PCT/US90/00451).

³³ The '385 and '242 patents are continuations-in-part of the 1990 PCT application.

³⁴ 35 U.S.C. § 120. The first paragraph of 35 U.S.C. § 112 recites: "[The application must contain] a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same"

Generally, priority of invention is awarded to “the first party to reduce an invention to practice” either actually or constructively.³⁵ Actual reduction to practice occurs on the date when an inventor (1) “performed a process that met all the limitations of the [claims];” and (2) “determined that the invention would work for its intended purpose.”³⁶ Constructive reduction to practice occurs on the date when a patent application is filed that complies with the requirements of the patent statute.³⁷ Here, Rexam argues that the claims of the ‘385 and ‘242 patent were constructively reduced to practice upon the filing of the 1990 PCT application, January 26, 1990.

For the 1990 PCT application to serve as constructive reduction to practice of Rexam’s asserted claims, that application “must describe the subject matter of [those claims] in terms that establish that [Rexam] was in possession of the later-claimed invention, including all of the elements and limitations presented in [those claims] at the time” of the filing of the 1990 PCT application.³⁸ If an explicit limitation in the asserted claims is missing from the 1990 PCT application “it must be shown that a person of ordinary skill would have understood, at the time the [1990 PCT application] was filed, that the description requires that limitation.”³⁹

Rexam argues that the 1990 PCT application contains all of the limitations of the

³⁵ *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1169 (Fed. Cir. 2006) (quoting “*Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998)).

³⁶ *Cooper*, 154 F.3d at 1327.

³⁷ *Hyatt v. Boone*, 146 F.3d 1348, 1352 (Fed. Cir. 1998) (“The filing of a patent application serves as conception and constructive reduction to practice of the subject matter described in the application.”).

³⁸ *Id.* at 1353; see also *id.* (“It is insufficient as written description, for purposes of establishing priority of invention, to provide a specification that does not unambiguously describe all limitations of the count.”).

³⁹ *Id.*; see also *id.* (“[W]hen an explicit limitation in an interference count is not present in the written description for whose benefit is sought it must be shown that a person of ordinary skill would have understood, at the time the patent application was filed, that the description requires that limitation.”).

asserted claims of the '385 and '242 patents, either expressly or inherently. The asserted claims of Rexam's bottom reforming patents each require, among other things, the step of moving a reforming roller radially into engagement with a substantially longitudinal wall of a can.⁴⁰ The 1990 PCT application does not explicitly describe that step, but its specification states that "[a] reforming roller 160 is brought into engagement with the outside of the domed end 163 of the container and is supported on a shaft that is designed to be rotated along an arcuate path around the center axis for the container C."⁴¹ The specification continues: "[t]he roller has a peripheral configuration 166 which defines a substantially vertical upwardly and outwardly tapered wall having a generally arcuate upper portion 168 so that inner wall

⁴⁰ D.I. 195, Ex. 8 ('385 patent); D.I. 195, Ex. 9 ('242 patent).

'385 patent—Claim 17

17. A method of reforming the bottom of a container, said container having a longitudinal and a radial axis, a generally cylindrical side wall parallel with said longitudinal axis; an outer annular wall; a convex U-shaped portion; a preformed bottom wall including a center domed portion; and an annular, substantially longitudinal wall joining said domed portion and said convex U-shaped portion, said method comprising: providing radially inward support for said container; providing a reforming roller; and *moving said reforming roller radially into engagement with said substantially longitudinal wall*, said reforming roller rotating along said longitudinal wall and about an arcuate path in substantial radial alignment with said radial inward support; wherein said reforming roller affects the angle of said substantially longitudinal wall. (emphasis added).

242 patent (claims 11, 12, and 17)

11. A method of reforming a bottom of a drawn and ironed beverage container, said container having a longitudinal axis; a generally cylindrical side wall parallel with said longitudinal axis; the bottom having an outer annular wall, a convex U-shaped portion, a preformed bottom wall including a center domed portion, and an annular, substantially longitudinal wall joining said domed portion and said convex U-shaped portion, said method comprising: providing said drawn and ironed beverage container; providing a reforming roller; and *moving said reforming roller radially into engagement with said substantially longitudinal wall* of said beverage container, said reforming roller rotating along said longitudinal wall and circumferentially about an arcuate path, wherein said reforming roller affects the angle of said substantially longitudinal wall. (emphasis added)

12. The method of claim 11 including the step of providing radial inward support for said container.

17. The method of claim 11, wherein said reforming roller affects the angle of said substantially longitudinal wall by achieving a negative angle (A) from the longitudinal axis of said container.

⁴¹ D.I. 272 at A121-A122.

170 of the countersink is reformed to a more vertical profile while the dome 162 is stretched to a small degree.”⁴² Claim 4 of the 1990 PCT application includes the “further step of reforming said inner wall of said U-shaped annular support member to reshape said inner wall to a more vertical configuration and expand said center panel.”⁴³ The parties’ disagreement is whether the roller described in the 1990 PCT application necessarily engages the inner wall of a can bottom through radial movement. For the reasons below, the court determines that there is a genuine issue of material fact as to whether one of skill in the art would understand the 1990 PCT application to require radial movement of the reforming roller.

It is undisputed that the 1990 PCT application does not explicitly disclose the step of moving a reforming roller radially into contact with the substantially longitudinal wall. Rexam argues that that step is inherently present in the application. The specification of 1990 PCT application recites the step wherein “[a] reforming roller 160 is brought into engagement with the outside of the domed end 162 of the container”⁴⁴ Claim 4 of that application also recites “the further step of reforming said inner wall of said U-shaped annular support member to reshape said inner wall to a more vertical configuration and expand said center panel.”⁴⁵ Crown argues that the steps described in the specification and claim 4 of the 1990 PCT application do not require radial movement of a roller. It argues that the same result could be accomplished via vertical roller movement. Rexam, counters that one of skill in the art would have

⁴² *Id.* at A122.

⁴³ *Id.* at A125.

⁴⁴ *Id.* at A121-A122.

⁴⁵ *Id.* at A125.

understood that radial movement of the roller was necessary because vertical movement would have been undesirable for a number of reasons.

Crown's expert, Anton A. Aschberger, opines that the 1990 PCT application does not necessarily disclose radial movement of a roller into engagement with a can wall.

Aschberger states that:

radial movement of the roller is not inherently described in the PCT application because, for example, the roller can be brought into engagement with the domed end (162) by moving it vertically, *i.e.*, parallel to the central axis of the container, from an initial position below the domed end. Nothing in the specification of the PCT application precludes such vertical movement of the roller.⁴⁶

He concludes, therefore, that:

on the PCT application filing date, a person skilled in the art would not have recognized the earlier-filed application as having described the later-claimed step of moving a roller radially into engagement with a substantially longitudinal wall of a container as later claimed in the asserted claims of the bottom reforming patent.⁴⁷

Rexam's expert, Edmund Gillest, disagrees and concludes that one skilled in the art would recognize the requirement of radial movement inherent in the 1990 PCT application. In his rebuttal report, Gillest stated that "[i]f the roller was moved 'axially' (upwards) into engagement as opposed to 'radially' (outwards), the dome 162 would be compressed, which is the opposite of stretching that is described in the PCT Application."⁴⁸ At deposition, Gillest testified that he did not believe that it was possible to stretch the dome of the can bottom without radial movement of the roller.⁴⁹ In answer to another question, however, he agree that "it would be possible to get some stretching

⁴⁶ D.I. 195, Ex. 5, Aschberger report, Tab A at 21.

⁴⁷ *Id.*

⁴⁸ D.I. 196, Ex. 24 at 4.

⁴⁹ D.I. 195, Ex. 6, Gillest deposition at 76:2-77:13.

in dome 162 by moving the roller vertically upward without moving it radially outward if the wall merely goes from positive to zero.”⁵⁰ Crown argues that Gillest’s statement establishes that radial movement is not required by the 1990 PCT application and, coupled with Aschberger’s opinion that vertical roller movement could achieve the bottom reformation described therein, that Rexam’s asserted claims were not constructively reduced to practice in 1990.

The 1990 PCT application, however, describes not only a roller stretching the dome 162 but also reforming the inner wall 170.⁵¹ Gillest addresses the inner wall reformation in his rebuttal report. He states that “the purpose of the technology is to move a portion of the substantially longitudinal wall of the bottom of the can radially outward,” pointing to the language of the 1990 PCT application that the “inner wall 170 of the countersink [substantially longitudinal wall] is reformed to a more vertical profile.”⁵² Additionally, Gillest examines other features illustrated in figure 9 of the 1990 PCT application that he states supports his opinion that radial movement of the roller would be understood as required by that application. First, feature 156 (the “plug”) from Figure 9 provides axial support to the can. Feature 150 (the “jig”) surrounds the base of the can providing radial support. Gillest opines that “[t]he only reason the operation would need the radial support provided by the jig is that the radial inward support counteracts the *radially outward* forces of the roller during its *radial* engagement with

⁵⁰ *Id.*, Ex. 6, Gillest deposition at 78:8-17.

⁵¹ D.I. 272 at A122.

⁵² D.I. 196, Ex. 24 at 3.

the inner wall of the can."⁵³

As a result of the disagreement in opinion between the parties' respective experts as to whether one of skill in the art would understand the 1990 PCT application to require radially movement of the roller, the court finds that a genuine issue of material fact exists as to whether the asserted claims of '385 and '242 patents were constructively reduced to practice on January 26, 1990. If the finder of fact determines that those claims were constructively reduced to practice with the filing of the 1990 PCT application, the Ball bottom reforming process is not prior art and, therefore, can not invalidate Rexam's patents. In light of the question of fact concerning what one of ordinary skill in the art would understand was, or was not, required by the 1990 PCT application, the court need not address the parties' arguments concerning the Ball bottom reforming process. Consequently, Crown's motion for summary judgment must be denied.

For the reasons stated herein, IT IS ORDERED, ADJUDGED, and DECREED Crown's motion for summary judgment (D.I. 193) is **DENIED**.

October 5, 2007
Wilmington, Delaware



Thyng, U.S. Magistrate Judge

⁵³ *Id.*, Ex. 24 at 4-5. In a declaration submitted with Rexam's opposition brief, Gillest also lists several additional reasons for his opinion that one of ordinary skill in the art would have understood that vertical movement of the roller was suggested by the 1990 PCT application. Gillest opines that vertical roller movement would tend to damage the can by "possibly deforming or bending the flange"; "scraping along the wall as [the roller] moves vertically [which could] deform[] the countersink . . . impacting the integrity of the inner wall"; and that vertical movement of the roller "would cause damage to the roller . . . [which would result in damage to the] inner wall [and] the roller." D.I. 272 at A316-A317.